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DETERMINANTS OF ACHIEVEMENT AND UNDER-ACHIEVEMENT AMONG LOWER CLASS URBAN NEGRO CHILDREN. PROGRESS REPORT.

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THIS PROGRESS REPORT DESCRIBES THE DEVELOPMENT OF TESTING METHODS AND DATA COLLECTION PROCEDURES FOR USE IN THREE PARALLEL STUDIES OF THE ACHIEVEMENT OF 73 FIFTH-GRADE URBAN, LOWER-CLASS NEGRO CHILDREN. A SOCIAL-PSYCHOLOGICAL INVESTIGATION RELATED THE CHILDREN'S ACHIEVEMENT TO SELECTED VARIABLES OF SOCIALIZATION, ESPECIALLY APPROVAL-DISAPPROVAL, THE PROVISION OF INFORMATION, DISCIPLINE, AND THE INVOLVEMENT OF THE PARENT IN THE CHILD'S PERFORMANCE. A PSYCHIATRIC INVESTIGATION USED A SAMPLE OF FOUR MALE AND FOUR FEMALE ACHIEVERS AND AN EQUAL NUMBER OF UNDERACHIEVERS TO INVESTIGATE SUCH FACTORS AS HEALTH, INTELLIGENCE, COGNITIVE AND LANGUAGE DEVELOPMENT, MOTIVATION, EGO DEVELOPMENT, AND EMOTIONAL FREEDOM TO LEARN. IN AN ANTHROPOLOGICAL STUDY THE PARENTS OF THE 16 CHILDREN IN THE PSYCHIATRIC INVESTIGATION WERE INTERVIEWED TO DETERMINE THEIR IDEAS ABOUT CHILDREN, CHILD REARING, AND IDEAL ADULT BEHAVIOR. INFORMATION ON THE PARENTS' SOCIAL PARTICIPATION IN THE WIDER SOCIETY AND BIOGRAPHICAL DATA WERE ALSO GATHERED IN ANOTHER STUDY. NO CONCLUSIVE DATA ARE PRESENTED. (DK)

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Progress Report

FERP Grant #64-298

DETERMINANTS OF ACHIEVEMENT AND UNDER-ACHIEVEMENT AMONG LOWER CLASS URBAN NEGRO CHILDREN

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Progress Report

FFRP Grant #64-298

Determinants of Achievement and Under-achievement among Lower Class Urban Negro Children

According to the plan laid out in our initial research proposal, our attack on the problem of identifying determinants of school achievement and under-achievement in the lower-class Negro population has centered mainly in three parallel investigations using three different perspectives; anthropological (conducted by Mr. Scheinfeld), psychiatric (conducted by Dr. Hirsch), and social psychological (conducted by Dr. Solomon). A large part of the effort in all three investigations has been in developing and testing methods of data collection. We have also found it possible to increase the sample size in each investigation beyond what we had initially anticipated, and, in line with this, to carry on somewhat more extensive studies than originally envisaged.

Although the grant funds have been essentially depleted at this point, none of the investigations has yet been completed. Work on them is continuing, with the support of the Institute for Juvenile Research.

In the following pages, the accomplishments to date, present status, and future plans of each of the three investigations will be presented. An appendix contains copies of the various rating scales, schedules, instructions, instruments, observation forms, etc., used in the different studies.

Social Psychological investigation

The Social-psychological investigation, directed by Daniel Solomon; is nearing completion. All data have now been collected; most have been coded and punched on IBM cards, and preliminary analyses are now under way. Following is a brief description of the variables and techniques which have been used in measuring them; and of the analyses which are planned.

The major purpose of this study is to relate children's achievement and achievement behavior to selected variables of parental socialization, clustering around approval-disapproval, the provision of information, degree of control maintained, and manifest interest and involvement of the parent in the task situation and child's performance. The socialization data were collected in visits to the homes of 73 5th grade Negro children and include measures of current behavior of parents toward children working at selected problem-solving tasks. The settings in which all measures of parental behavior and most measures of child achievement were collected were identical across subjects.

The study assumes that current concepts of achievement and achievement motivation are inordinately global, thereby possibly overlooking [redacted] ferences between types or dimensions of achievement. Various characteristics of tasks may be involved in the individual's definition of what is "interesting", and may thus determine what he is likely to be motivated to work on, to persevere at, and to succeed with. As an initial exploration of this assumption, the present study varies several dimensions of achievement task characteristics for both independent and dependent variables.

Independent variables

We have measured behavior of both parents directed toward the child as he works on a series of tasks. The least structured of these presented

the child with several interesting objects (kaleidoscope, radiometer) and with minimal instructions. Parental restrictiveness vs. encouragement and interest were observed and rated.

A set of six tasks was also presented, varying according to two dimensions; the requirement of verbal versus non-verbal responses to complete the task, and the requirement of "convergent" versus "divergent" thinking to produce appropriate responses. The following is a list of these tasks and the dimensions in each.

1. map problem (showing "fastest" and "shortest" routes on map) nonverbal, convergent

2. rig-a-jig (making constructions out of plastic pieces) nonverbal, divergent

3. cars (putting pictures of cars in age sequence, and giving reasons for choices) verbal, convergent

4. consequences (telling possible results of fantastic event) verbal, divergent

5. card-sorting (selecting and sorting by proper dimension) nonverbal, convergent

6. similarities and differences (listing similarities and differences between two pictures) verbal, divergent

In the final task, the child was presented a series of 30 items, each consisting of seven drawings of abstract figures, three on an upper row and four on a lower row. The child was to select the one figure on the lower row which went best with those on the upper row. Many of these were very difficult. This was so that we might experimentally manipulate success and failure. The major purpose of this task was to obtain measures of the parents' provision of information to the child about his task performance for different degrees of success and failure. There were three blocks of trials with ten trials in each. The problems were presented in cards which were slid into a vertical board. The child responded by putting a plug

through a hole under the selected response. Lights flashed on the back of the board (where the child could not see) indicating "right" or "wrong". The parents were sitting across the table from the child, behind the board, keeping score. They were told that they could say anthing they liked to the child. Estimates of the child's probable performance were made before each block of trials. The sequence was scheduled so that the child got 3 right on the first block, 5 on the second, and 7 on the third. It was assumed that information communicated in this situation would be related to task feedback in other situations, and that accurate feedback is related to the development of realistic task performance expectations and aspirations in the child.

Tape recordings were made of these task sessions, and parental communication to the child is now being scored according to a system which is described in attached material. Two experimenters were present in the task situations, one administering the tasks, the second operating the tape recorder and handing equipment and materials to the first experimenter. Both experimenters made ratings on parental interest and encouragement at the' conclusion of each task. The second experimenter also checked the occurance of 10 categories of nonverbal behavior for successive time periods within each task. Both experimenters also made ratings on a set of general categories of parental behavior, relating to the entire session, after the conclusion of the session.

Dependent variables

Several indices of achievement and achievement behavior constitute the dependent variables.

1. Task behavior. Achievement behavior was measured in a series of tasks given to each child in individual sessions in school. These

tasks varied on three dimensions, convergence-divergence, verbal-nonverbal, and low versus high experimenter involvement. The following tasks were used:

1. Mystery solution (giving reasons for relevance of clues) convergent, verbal

2. (a) Paper and pencil mazes; (b) checker board puzzle convergent, nonverbal

3. Unusual uses (descriptions of unusual uses for ordinary objects) divergent, verbal

4. (a) Franck test drawings; (b) drawings incorporating circles divergent, nonverbal

Two degrees of experimenter involvement were distributed between tasks 2a and 2b, and between 4a and 4b. One condition was run with the experimenter neutral, minimally involved; the other with the experimenter closely involved and praising. (It was believed that behavioral differences between these experimenter conditions would be related to such parental behavior variables as dominance and warmth).

The experimenter rated the behavior of the S on each of these tasks for persistence, apparent interest, and quality of performance. Time spent on each task was another measure of persistence.

2. Classroom behavior. A system for scoring children's classroom behavior has been developed, extensively tested and repeatedly revised. The present form is attached. Observers visited the classes of the children, and made repeated observations on each child in each of three different achievement-relevant class situations (reading, arithmetic, spelling). The major variables of achievement behavior scored were time spent working on tasks, apparent interest, and compliance.

3. Achievement test performance. California Achievement Tests have been administered to all the Ss. Standard scores on these tests will be used as

dependent variables in one set of analyses. Lorge-Thorndike verbal and nonverbal IQ tests have also been administered and have been seen to have quite high correlations with the Achievement Test scores. It was originally planned to peform a multiple regression analysis, with the two IQ scores as independent variables and the achievement test scores as dependent variables, and to use the residuals of the observed around the expected values as the measure of achievement test performance. The height of the correlations between the tests throws some doubt on the validity of such a procedure. The present plan is to do this analysis and compare the results obtained in this way with those obtained by using achievement test scores uncontrolled for IQ.

Analysis

1. Separate cluster-or factor-analyses will be done on mother and father behavior for the home task session as a whole. This will include those assessments which relate directly to the entire session, and totals or means of the measures taken separately for each task. Factor scores on each factor for each parent will be related to the global measures of the child's achievement, and to the child's performance on the different types of achievement tasks.

2. For those items from the tapes, the nonverbal ratings, and the task ratings on which different measures are available for each of the family tasks, scores or indices will be derived which reflect the behavior of each parent on each task. One possible way to do this would be to weight the items in each task according to loadings of the totals of these items in the general factor analysis and thus derive "factor scores" relating to the specific tasks. Another way would be to do separate factor analyses on the items occurring in each task. An analysis of variance will be performed to determine whether either parent produces different behavior (according to these

weighted scores) as a function of individual tasks or task dimensions. If there are no significant differences, this line of analysis will be abandoned. If there are significant differences, scores on individual tasks, and sums of scores across task dimensions, will be related to scores of children's achievement behavior for each task in the testing situation, and for sums across task dimensions.

3. Parental role differentiation will be investiaged and related to the child's achievement and achievement behavior. Exactly how this is to be done has not yet been determined, and may partially depend on the results of the other analyses. If, for example, fathers and mothers are found to produce similar factor structures, it may be feasible to compare their relative placement on the same or similar factors. If this should not be possible with factor scores, perhaps the same could be accomplished with selected individual variables or scales composed of combinations of variables. Father-mother discrepancies on these variables or scales could be related to the child's achievement. Relative dominance, the predominant source of reward and punishment, encouragement and interest, would be interesting to investigate in this way.

Psychiatric Investigation

Sixteen fifth grade youngsters, four boy and four girl achievers and four boy and four girl under-achievers, constitute the intensive sample for the psychiatric portion of the study. An additional seven children, serving as pre-pilot subjects, also went through the observation and testing procedures.

The intent of this portion of the study is to observe certain individual characteristics of achievers and under-achievers, under the headings of Physical Health, General Intelligence, Cognitive Development, Language Development, Motivation, Ego Development, and Emotional Freedom to Learn, and to relate the child's standing on these various dimensions to his achievement level as shown in his grade average and scores on standarized achievement tests, and to his achievement behavior as described in teacher reports, classroom observations, and his performance on the achievement tasks of the social psychological investigation.

Considerable effort was expended in the attempt to equate the group of achievers and under-achievers on Lorge-Thorndike Verbal and Non-verbal IQ scores, while at the same time retaining the social criteria of a dual-parent family situation and the presence of siblings in the home. Even with a starting sample of 160 fifth graders, it was impossible to equate the four cells on this criterion, although very low and very high IQ children could be excluded. Since even among this selected intensive sample, achievement status seemed to correlate with measured IQ, it was decided to attempt to make observations on cognitive development and language as well, in order to explore the relationship of these elements of functioning to the areas of major concern in this study, which are motivation, ego development and emotional freedom to learn.

The psychiatric observations (all tape recorded) were divided into three sessions of approximately forty-five minutes each. The first session was devoted to getting acquainted with the child, observing his approach to a number of games and puzzles, the taking of a polaroid photograph, and the administration of a simple structured questionnaire regarding some dimensions of present self-esteem, future aspirations, and attitudes toward boys, girls, mothers, and fathers.

The second session consisted of a series of three family puppet plays, progressively more structured. In Situation A, the subject is introduced to a same-aged, same-sexed puppet, and asked to choose three other characters out of a group of five, consisting of mother, father, opposite-sexed sibling, grandmother and grandfather, to be in the play with the main character (Susie or Billy). The subject is asked to make up a play that has to do with something that happens in families, lasting ten minutes, with the subject playing all four of the characters. In Situation B, the subject is asked to play the brother and sister parts, while the examiner plays the part of the parents in a Sunday afternoon scene. In Situation C, these roles are reversed, and the subject plays the part of the parents, while the examiner plays the part of the brother and sister puppets, in a structured homework and school achievement situation.

The third psychiatric session consists of a relatively unstructured psychiatric interview which covered, among other things, at least the following headings: relationships to parents, siblings, and other important family members, relationships to friends, neighborhood peers, and schoolmates, interests, favorite TV programs, discussion of occupational aspirations, and important identification figures, the relating of a dream, and the statement of "three wishes."

A series of clinical psychological observations were also made and were quite extensive, being divided among three different testing sessions. The following instruments were utilized: the Wechsler Intelligence Scale for Children (Verbal and Performance), the Bender Visual-motor Gestalt Test, a sentence completion test, four Thematic Apperception Test Cards and Two Michigan Pictures (projective stories), the Crandall Achievement Standards Test, the Rosenzweig Picture-Frustration Test, the Deutsch Concept Sorting and Verbal Identification Tests, and several measures of delay of gratification and impulse control.'

The scoring of all the psychological test material and an intensive quantitative analysis of some of the puppet play material has already been completed. This material has been coded, and is ready for card punching. A rank order correlation technique will be used for the analysis of these data, and run for boys and girls separately and together.

An elaborate scoring system has also been devised for many of the more qualitative psychiatric judgments, and has been tested on all of the pre-pilot children. A case summary of salient characteristics has also been prepared for each of these subjects. The [illegible]terial of intensive sample children is to be analyzed between no[illegible] the first of the year.

Rating sheets and scoring techniques that are being used in the analysis of the psychiatric and psychological data are enclosed.

Anthropological Investigation

The anthropological investigation, under the direction of Daniel R. Scheinfeld, is still in progress. The first phase of this investigation consisted of approximately one hundred hours of pre-test interviewing by Scheinfeld and a female anthropological assistant. The second phase, an intensive study of sixteen families, was to be carried out jointly by Scheinfeld and the assistant, but the onset of a serious illness made it necesaary for the assistant to leave the project permanently. Rather than train another assistant Scheinfeld decided to interview both the mothers and the fathers of the sixteen families himself. (These sixteen families are those of the 16 children in the psychiatrist's intensive sample). Data collection for this second phase should be completed by March 1966. Plans for a third phase include a survey of 75-100 families designed to systematically test some of the hypotheses derived during the second phase.

Anthropological Interviews

Between six and nine interviews are carried out with each of the 32 parents. The interviews cover five major areas:

1. Ideas about children and child rearing (this includes concepts regarding desirable attributes in children, concepts regarding child rearing techniques, theories about learning and motivation in children, long range goals for children, and the meaning of children in the context of the parents total life picture).
2. Reports of socialization behavior.
3. Ideas about ideal adult behavior and the relation of that behavior to the perceived nature of reality.
4. Reports of parents' social participation in the wider society (this includes kinship and friendship relations, social relations in the

context of work, and organizational participation).

5. Biographical data on the parent (this includes child rearing practices of the parent's parents, the structure of the parents natal communities and the social and economic position of the parents' families in that structure, migration history, work history, and educational career.)

Interview Method:

Two closely related principles serve to structure the interview method:

1.) The anthropologist takes the role of a student of child rearing rather than the role of expert. He presents himself as someone who wishes to learn about methods of child rearing from the parents own first hand experience; ie. what methods the parents feel work or do not work in achieving the goals of child rearing. This approach puts the parent in the role of expert and the anthropologist in his traditional role as a student of society, dependent upon his informants for enlightenment. It is possible to use this approach without appearing bogus for two reasons: First, the anthropologist is a single male and hence cannot be expected to know much about child rearing; and secondly, the anthropologist truly believes that he has a great deal to learn from his informants.

2.) The anthropologist is seeking to discover the informants' own system of thought regarding child rearing and society. The interviews center primarily on the parents' own terminology, distinctions, and evaluations accompanied by reports of behavior within that framework. Only secondarily is the anthropologist concerned with filling in a preconceived conceptual framework of his own.

The first set of interviews: Towards the beginning of the first interview the parent is asked "what do you feel is most important about children?" This is the only standard question asked in these first two or three interviews. After the parent has given an exhaustive reply to this question, each of the key terms in the reply is taken separately and explored through a number of techniques. First the parent is asked to say something more about the meaning of the term. The reply to this question will usually include several new terms which are noted for later discussion. Next the parent is asked to mention some children who exemplify this term or its opposite. Finally, the discussion focuses on the meanings of this term in concrete situations at different stages in the development of the child. The term in question may apply either to the child's role or to the parent's role. The investigation carries on this way, taking up one term at a time, until some kind of closure is reached. This may take as many as five interviews. During the course of the interviews relationships between terms continually emerge and are systematically explored.

Five implicit questions help to structure this first set of interviews: 1) What are the most desirable attributes in children; 2) Why are they desirable; 3) When does one first expect the child to start exhibiting each of these attributes and in what ways?; 4) What are the most effective methods for developing these attributes?; and 5) Why are these methods the most effective?

The second set of interviews: This set of interviews concentrates mainly on areas #3, #4 and #5 (see above). The discussion builds on a number of concepts which emerge during the first set of interviews and also includes a larger number of standard questions than do the earlier interviews. Among these is a series of questions on the meaning of death and its relation to

the meaning of children.

The Third set of interviews: In these final interviews the situational meanings of salient terms and the relationships between terms are cross-checked and the investigator covers some topics in his own theoretical scheme which were not spontaneously mentioned by the informant.

Observations

Both during the interview sessions and on less formal occasions observations are made of familial and extra-familial behavior. Frequently the anthropologist attends family gatherings or accompanies family members on trips to the homes of friends or relatives. As the anthropologist is presently living in the immediate neighborhood of the intensive families, participant observation among the intensive families and their neighbors has become a daily activity.

Analysis

The following dimensions are used as guidelines for interviews, observations and ongoing analysis of the data: Verbal communication, empathy, trust, reciprocal exchange, continuity, independence, autonomy, goal orientation, standards of excellence, latitude for experimentation, normative regulation of activities, learning, endorsement of school, social categories of desirable and undesirable persons, social placement of self, and general definitions of the child. Using these as well as other dimension of analysis, four types of possible relationships will be examined: 1) Within each of the five major areas of inquiry (see above); 2) Across any of the five major areas of inquiry; 3) Between any variable or set of variables and the data of the other two investigators in the study; and 4) Between any variable or set of variables and the school performance of all the children in the family.

It will be noted that the scheme set out in this report involves three types of data; parents' ideas, parents' reports of behavior, and observed behavior. The relationship or absence of relationship between these three types of data will be considered in the analysis and will have considerable significance for the design of the third phase.